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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,968	02/13/2002	Heinrich Wieland	38891.00100	6225

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EXAMINER

HANLEY, SUSAN MARIE

ART UNIT

PAPER NUMBER

1651

MAIL DATE

DELIVERY MODE

12/03/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/049,968

Applicant(s)

WIELAND ET AL.

Examiner

SUSAN HANLEY

Art Unit

1651

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54 and 56-71 is/are pending in the application.
- 4a) Of the above claim(s) 70 and 71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54 and 56-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's arguments, filed 9/30/2010 have been fully considered regarding previous rejections and objections have been fully considered and they are partially persuasive. Rejections and/or objection not reiterated from previous Office actions are hereby withdrawn. The following rejections and objections are newly applied. They constitute the complete set presently being applied to the instant application.

Claims 54 and 56-69 are under examination. Claims 70 and 71 stand withdrawn.

Claim Rejections - 35 USC § 112

Claims 54 and 56-69 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Applicants argue that the it is incumbent upon the Patent Office to explain why it doubts the truth or accuracy of any statements in a supporting disclosure and to back up such assertions with acceptable evidence or reasoning which is inconsistent with the contested statement. Applicants assert that methods of making the steroidal aromatase inhibitors are discussed in the references.

Applicants argue that administration of the claimed substances is not difficult to a person having ordinary skill in the art and that the specification teaches how to make the variously claimed inhibitors. Applicants assert that it was known in the art how to make oxidized soya glycines and Formestan.

Applicants assert that the Examiner should at least identify subject matter that is considered to be enabled. Applicants argue that the specification provides a detailed listing of inhibitors, all of which can be made using prior art techniques and that

examples are disclosed that provide an actual reduction to practice of the steroidal soya glycinines and Formestan. Applicants assert that as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement is satisfied. Applicants maintain that steroidal aromatase inhibitors are able to effectively penetrate the dermis in order to reach the underlying collagen.

Applicants' argue that failure to disclose other methods by which the claimed invention may be made does not render a claim invalid and that not everything necessary to practice the invention need be disclosed. Applicants assert that it is not necessary to specify the dosage or method of use if it is known to one skilled in the art that such information could be obtained without undue experimentation.

Applicants' arguments have been considered but they are not persuasive. Responding to Applicants' argument regarding the burden of the Office to back up assertions of non-enablement with evidence and reasoning, such evidence and reasoning were provided in the rejection. Several references were provided that demonstrate the unpredictability in the art of the concept that inhibiting aromatase will help to restore collagen. It was reasonably demonstrated that that the prior art teaches that the loss of estrogen decreases collagen content in the skin and that augmentation of the skin with estrogen-type compounds increases collagen content. Applicants have not specifically addressed this aspect of the enablement rejection.

Responding to Applicants' argument that methods of making steroidal aromatase inhibitors are known in the art, it is acknowledged that it is known how to make the

steroidal aromatase inhibitors listing on p. 9-11. However, the specification lacks enablement for making aromatase inhibitors from soya glycines or oxidized soya glycines because the specification provides very general guidance on isolating sterols from soy glycines but lacks disclosure on whether sterols from soya glycines are actually the substances responsible for the therapeutic effect. It was noted in the rejection regarding the references to the oxidation of soya glycines, that Fujimoto et al. do not teach oxidation. Welzel et al. teach an oxidation reaction but the specification fails to disclose how this relates to the structures of the unknown sterols allegedly isolated from soy glycines. That is, since the structures of the sterols isolated from soya glycines are unknown, the skilled artisan would not know what compounds would be obtained from the treatment of said compounds by the method of Welzel et al. and if the resulting compounds would necessarily be inhibitors of aromatase. Regarding the cited US patent, Schmidt et al. only references Welzel et al. and Fujimoto et al. for the methods of treatment of the soya glycines and does not provide any further guidance on preparation or description on what the oxidized soya glycines are (col. 4, lines 17-44).

Responding to Applicants' argument that the Examiner should identify allowable subject matter, no allowable subject matter is determined at this time. Regarding Applicants' assertion that a method of making and method of using aromatase inhibitors for the claimed method has been demonstrated within the scope of the claims, this is not found persuasive since the methods of making sterols from soya glycines that can be oxidized that are the cause of the therapeutic effect are not enabled for the reasons stated supra. It was acknowledged that it is known how to make the aromatase

inhibitors listed on pages 9-11 of the specification. However, the claimed method is not enabled for steroidal compounds that inhibit aromatase because there is no correlation shown by the specification that inhibition of aromatase is the cause of the therapeutic effect and the prior art shows unpredictability that aromatase inhibition will augment the amount of collagen present in the skin for the claimed methods.

Responding to Applicants' argument regarding the absorption of the disclosed steroidal compounds, this argument does not overcome the rejection due to the lack of correlation between aromatase inhibition and the claimed therapeutic effects and the unpredictability demonstrated by the prior art *supra*.

Regarding the reduction to practice for the soya glycinates, the specification teaches that oxidized soya glycinates that inhibit aromatase are administered for the treatment of eye wrinkles and striae. The examples do not provide a correlation for what in the administered composition is actually providing the therapeutic effect. It is also unclear which treatment (Welzel et al. or Fujimoto et al.; it has been noted that only Welzel et al. appears to be directed to oxidation but that it is unclear what is being oxidized in the soya glycinates) was used to prepare the oxidized soya glycinates, if the oxidized soya glycinates are some type of extract or if a sterol was isolated and administered.

Regarding the reduction to practice of Formestane, Formestane was used to treat a condition (overstretching of ligaments and tendons) which is not related to the instantly claimed method for the stabilization of collagen for wrinkles, striae, skin atrophy or sun

exposure. Nor is the treatment of overstretching of ligaments and tendons under examination.

Regarding Applicants' assertion that not everything need be disclosed including dosages, the specification fails to demonstrate a correlation that inhibition of aromatase by steroidal compounds is the cause of the therapeutic effect and the prior art shows unpredictability that aromatase inhibition will augment the amount of collagen present in the skin for the claimed methods. Regarding dosages, the specification discloses this on page 18, but this does not enable the invention for the reasons stated.

To practice the invention of the instant claims required undue experimentation due to unpredictability and the lack of direction from Applicants regarding the restoration, increase or stabilization of collagen by decreasing the estrogen content in the skin by the inhibition of aromatase by steroidal compounds as well as the isolation sterol from soya glycinines that inhibit aromatase. In light of the above discussion, the instant claims do not comply with the enablement requirement of 35 U.S.C. § 112, first paragraph, since to practice the claimed invention a person of ordinary skill in the art would have to engage in undue experimentation, with no assurance of success.

Claims 62-64 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

This rejection is maintained insofar as it pertains to sterols from soya glycinines or oxidized soya glycinines; Applicants' arguments will be answered as they pertain to this part of the rejection.

Applicants argue that the specification discloses at p. 13-14 methods of making soya derived aromatase inhibitors "by means of topical separation methods, such as a liquid chromatography, particularly by means of HPLC." Applicants assert that oxidation of soya glycines is described by Fujimoto et al., by Welzel or US 5,945,109 and that examples of actual reduction to practice of oxidized soya glycines is demonstrated.

Applicants assert that the specification not only discloses various steroidal aromatase inhibitors but that it shows reduction to practice of the species (soya glycines and Formestan). Applicants also argue that written description can be satisfied without reduction to practice and the relevant structural characteristics and the correlation between structure and function is that the aromatase inhibitors share a common sterane core.

Applicants assert that steroidal aromatase inhibitors are able to effectively penetrate the dermis in order to reach the underlying collagen.

Applicants arguments have been considered but they are not persuasive. Responding to Applicants' argument that methods of making soya-derived aromatase inhibitors is described, in the instant case, describing how to make aromatase inhibitors from a plant is not a description of structure of what actually has the therapeutic effect, especially since there is no disclosure relating to the actual substance responsible for the therapeutic effect. As pointed out in the rejection, the specification teaches that soya glycine derived aromatase inhibitors can be obtained from "glycine soya" (soy bean oil, soy bean extract or soya sterole (p. 13). However, the reference to extraction, oxidation or purification by HPLC or column chromatography is vague and does not teach the

sterol structure that is isolated that inhibits aromatase thus treating the claimed conditions. General descriptions of making and purifying do not provide written description when there is no description of the compounds themselves beyond the general statement that they are sterols.

Regarding the references to the oxidation of soya glycines, it was pointed out that Fujimoto et al. do not teach oxidation. Welzel et al. teach an oxidation reaction but the specification fails to disclose how this relates to the structures of the unknown sterols allegedly isolated from soy glycines. That is, since the structures of the sterols isolated from soya glycines are unknown, the skilled artisan would not know what compounds would be obtained from the treatment of said compounds by the method of Welzel et al. and if the resulting compounds would necessarily be inhibitors of aromatase. Regarding the cited US patent, Schmidt et al. only references Welzel et al. and Fujimoto et al. for the methods of treatment of the soya glycines and does not provide any further guidance on preparation or description on what the oxidized soya glycines are (col. 4, lines 17-44).

Regarding the reduction to practice for the soya glycines, the specification teaches that oxidized soya glycines that inhibit aromatase are administered for the treatment of eye wrinkles and strias. The examples do not provide a written description for what in the administered composition is actually providing the therapeutic effect. It is also unclear which treatment (Welzel et al. or Fujimoto et al.; it has been noted that only Welzel et al. appears to be directed to oxidation but that it is unclear what is being oxidized in the soya glycines) was used to prepare the oxidized soya glycines, if the

oxidized soya glycinines are some type of extract or if a sterol was isolated and administered.

Regarding the reduction to practice of Formestan, Formestan was used to treat a condition (overstretching of ligaments and tendons) which is not related to the instantly claimed method for the stabilization of collagen for wrinkles, striae, skin atony or sun exposure. Nor is the treatment of overstretching of ligaments and tendons under examination.

Responding to Applicants' argument that the sterols from soya glycinines have the sterane ring structure in common, the specification does not provide a reasonable correlation between the sterane ring structure and the therapeutic effect of oxidized soya glycinines. Likewise, the specification fails to provide disclosure that reasonably correlates a sterol compound from oxidized soya glycinines having an effect on aromatase which is in turn responsible for the therapeutic effect.

Responding to Applicant's argument that steroidal aromatase inhibitors effectively penetrate the dermis to reach the underlying collagen, this action does not reasonably correlate the structural features of the alleged aromatase inhibitors of soya glycinines or oxidized soya glycinine to the claimed therapeutic effect.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN HANLEY whose telephone number is (571)272-2508. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sandra Saucier/
Primary Examiner, Art Unit 1651

/Susan Hanley/
Examiner, Art Unit 1651

Search Notes (continued)**Application/Control No.**

10/049,968

Examiner

SUSAN HANLEY

**Applicant(s)/Patent under
Reexamination**

WIELAND ET AL.

Art Unit

1651

SEARCHED

Class	Subclass	Date	Examiner

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
WEST updated	11/28/2010	SMH